

# National Capital Region Transportation Planning Board

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## MEETING NOTES

### BICYCLE AND PEDESTRIAN SUBCOMMITTEE

**DATE:** Tuesday, July 15, 2014

**TIME:** 1:00 P.M.

**PLACE:** Room 1, First Floor  
777 North Capitol Street NE  
Washington, DC 20002

**CHAIR:** Jim Sebastian, District Department of Transportation

**VICE-  
CHAIRS:**

David Goodman – Arlington Department of Environmental Services  
Jeff Dunkel, Montgomery County Department of Transportation  
Kristin Haldeman, WMATA  
Carrie Sanders, Alexandria Department of Transportation and  
Environmental Services  
Fred Shaffer, M-NCPPC, Prince George's County

**Attendance:**

Michael Alvino	National Park Service
Greg Billing	WABA
Cindy Engelhart	VDOT- Northern Virginia
Alec Gosse	CCRi (by phone)
Christine Green	Greater Washington Safe Routes to School
Kristin Haldeman	WMATA
Bill King	Loudoun County (by phone)
Alex Krughoff	Prince George's County DPWT
David Patton	Arlington County DES
George Phillips	Prince William County (by phone)
Hillary Poole	City of Alexandria
Jim Sebastian	DDOT

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Fred Shaffer	M-NCPPC Prince George's County
Paul Stoddard	City of Falls Church
Vic Weissberg	Prince George's DPWT (by phone)
John Wetmore	Perils for Pedestrians

**COG Staff Attendance:**

Michael Farrell  
John Kent  
Andrew Meese  
Jessica Mirr  
Mark Moran  
Rich Roisman  
Jon Schermann  
Marco Trigueros  
C. Patrick Zilliacus

**1. General Introductions.**

Participants introduced themselves.

**2. Review of the May 20<sup>th</sup> Meeting Minutes**

Minutes were approved.

**3. Estimating Spatially and Temporally Continuous Bicycle Volumes Using Sparse Data**

Mr. Gosse spoke by phone to a powerpoint.

Manual bicycle and pedestrian count data is mostly manual and very limited. The challenge is to spread limited count data over time and space. There will be some error involved in that modelling exercise.

It's best to combine data from a variety of sources. One possible source is image processing from a traffic camera, which yields imperfect data but better than nothing. By combining small amounts of available good data with large amounts of bad data, you can get better results than with just one or the other. You can spread the data from the actual count locations to places in the network, and to times, for which you do not have counts.

Mr. Gosse is using a TAZ based model, and predicts bicycle trips between TAZ's.

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If you have several years of data you can include an annual growth factor. In terms of using traffic cameras, it's helpful to record turning movements.

Mr. Moran asked if Mr. Gosse had tied this model in with the existing travel demand model. Mr. Gosse said that he had gotten an estimated origin-destination matrix by TAZ for bicyclists. But the Charlottesville model does not assign bike trips to specific network links. This is similar to the model that COG uses. VDOT put it together for the Charlottesville MPO. Mr. Gosse's model does assign trips to specific links in the network.

Mr. Meese added that our regional network is a small subset of the streets that actually exist, and does not include many of the most bicycle-friendly streets.

Mr. Meese said that many of our agencies do not use signal cameras. Not all video goes back to a central location, and there are policies on recording. There is a move afoot to go to thermal imaging rather than visual for accuracy. Mr. Gosse said that it would be easier to count thermal imaging. Mr. Gosse said that the best solution is a specialized sensor to count bikes, but they cost \$5-10 thousand, so using existing signal cameras might be a cheaper solution.

Ms. Engelhart asked if the cameras were from the City of Charlotte. Was any data harvested from VDOT-controlled signals? Ms. Engelhart said that data mining had been banned in the past by VDOT due to privacy issues. Mr. Gosse said that the only thing that is transmitted or retained is the count and the vehicle type, count, and turning movement, nothing else.

Mr. Sebastian asked about the end use of this data. Mr. Gosse said that better count data can guide facility construction. An estimated volume map for the whole city, and different ones for different days and times, is a much better guide to planning than a few isolated counts. With comprehensive data, you can bring bikes to the table on an equal basis with other modes.

Mr. Zilliagus asked about bike-only detectors. Mr. Gosse said that his work was aimed at jurisdictions that are not ready yet, for whatever reason, to buy bicycle-only counters.

You need some kind of continuous data, however, even if you don't have it everywhere, to make the model yield reliable results.

Mr. Wetmore asked how applicable these techniques are to pedestrians. Mr. Gosse said that it is not conceptually very different, but pedestrians have vastly more complex possible paths, creating a different sort of problem. And people on the sidewalk aren't necessarily making a trip.

Mr. Farrell asked about the role of the other COG staff. What are the next steps? Mr. Farrell replied that this presentation came out of a request from David Patton. Mr. Patton said that Arlington is doing a lot of counting, but not much modelling. He thought that the group,

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especially those who are modelers, might find that interesting. Modelling is in the region's future, and will enhance the utility of the count data that we have.

Ms. Engelhart asked how this might affect the COG model. Mr. Moran said that for the current COG model we do nonmotorized trips only for trip generation, not trip distribution. To do trip distribution we would need how long it takes to get from one TAZ to another by nonmotorized means. And the regional network is not complete; it excludes many minor streets where people might want to walk or ride. The model assumes that you can walk on most street segments other than freeways. Ms. Engelhart said that we may want to start looking at travel times for bicyclists in the future.

Mr. Sebastian said that the main problem is not lack of bicyclist data, but that the regional model is not designed for a local scale. The model measures trips from one zone to another, not between zones. The model is too coarse to capture most pedestrian trips. To represent every trip, you need to add every link, and to that you would need to add many more TAZ's, which would make the model too complex to run on our computers within a feasible amount of time.

Mr. Zilliacus said that COG's counting program includes bicyclists. Mr. Zilliacus asked whether regionally significant trails could be added to the regional network. The trips on those trails are mostly long enough to travel from one TAZ to another. Could we do trip distribution for those trips? Mr. Moran said that could be done eventually, but not immediately. The model can't do everything.

Mr. Gosse hopes that an MPO somewhere might take the lead in developing his model further. It could run next to the current travel demand model, but not be part of it, since it does different things.

#### **4. Draft Bicycle and Pedestrian Plan for the National Capital Region**

Mr. Farrell spoke to a powerpoint.

One major change since 2010 is the adoption of the Regional Transportation Priorities Plan, which provides a framework for the Vision goals, and explains how the different strategies and priorities relate to one another. Under the federal highway bill, MAP-21, several funding programs have been combined into the Transportation Alternatives Program, and the MPO has been given a role in administering those funds. Complete Streets policies have grown, and in the future most bicycle and pedestrian projects are likely to be funded as part of larger transportation projects, rather than through dedicated funding sources such as the Transportation Alternatives Program. Funding for bicycle and pedestrian projects has increased in the Transportation Improvement Program.

Another thing that is new since 2010 is the role of WMATA in promoting bicycle and pedestrian access to Metrorail, as well the expansion of Metrorail.

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There is new data available on walk and bike commuter mode shares through the US Census American Community Survey. For the metropolitan statistical area, walking hasn't changed much, but bicycling has increased. The MSA is a large area that includes the exurbs, but not the Baltimore area, which has its own MSA. Bicycling is exploding in the urban core, but in the exurbs cycling has declined further from the low levels of 2010. Data is available on-line at the census tract level.

Walk and bike facilities to access Metrorail have improved significantly, and we are seeing some results, with a significant increase in walk mode access since 2010. Walk and bike access is more cost-effective than adding connector buses. Further studies are under way to identify and prioritize improvements, and FTC rules have changed to allow transit funds to be used for off-site pedestrian and bicyclist improvements.

Pedestrian fatalities have increased at a national level since 2009. Deaths per capita have increased. One member pointed out that those numbers are not corrected for exposure. Mr. Farrell agreed, and noted that there are studies available that account for exposure.

In the Washington region pedestrian and bicyclist fatalities have been flat, but motorized fatalities have fallen rapidly. Bicyclist injuries have been increasing. The source of the data is DDOT, Maryland Highway Safety Office, and Virginia Highway Safety Office.

New facility types since 2010 include buffered bike lanes, green bike lanes, cycle tracks, and even bike lanes outside the urban core, of which there were very few before 2010. Ms. Engelhart noted that the Beulah Street bikes were put in in 2004. The green bike lanes shown are on First Street NE. Mr. Sebastian suggested that cycle tracks should be called "protected bike lanes". NACTO is recommending that based on focus group results. Mr. Sebastian suggested using the concrete-protected section for the final plan.

Bike parking is still needed. Where space is constrained we are now use bike corrals, which are racks placed on the street, protect by curb stops or flexi-wands. They can be deployed at corners where auto parking is not permitted, since they don't block visibility. WMATA is putting in bike and ride facilities, which are secured bike cages inside their parking garages.

Smart phones and assorted maps and routing tools, including Google maps, have made it much easier to obtain walking and bicycling directions.

Capital Bikeshare has been a huge success, and it has coincided with growth of bicycling in the District. Ms. Engelhart asked if we could data mine bikeshare data to get origin and destinations for bicyclists. Mr. Sebastian said that with GPS we will get actual results. Mr. Roisman said that many bikeshare trips were very short and substitute for walk trips. Mr. Meese added that most trips are less than half an hour due to the pricing structure.

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In the Best Practices chapter, there is more discussion of Complete Streets. Mr. Farrell also suggested that the jurisdictions “endorse and use” the NACTO bikeway and urban street design guides. Even for sections that are not consistent with the MUTCD, the NACTO treatments can be used as experiments. FHWA has endorsed the use of the NACTO guides.

Mr. Farrell discussed a summary table showing mileage of facilities completed since 2010, and the planned facilities and upgrades.

There are 463 planned projects in the database, and 34 projects reported Complete since May 2010. Partially completed projects are not counted, unless they were split into multiple phases, one of which has been completed. Only VDOT, Arlington, and Alexandria completed any projects, which is probably not true. Mr. Farrell asked if the members could check their projects and report what had been completed.

Mr. Shaffer asked about projects completed by developers. Mr. Farrell replied that if a developer built something that was not in the 2010 project, you can add it to the database, and then report it as complete. Mr. Shaffer said that these projects were in the plan, but only segments had been completed. Mr. Farrell replied that our accounting is imperfect in that to the extent that projects are kept as single unitary projects, you don’t get credit for them until they are finished.

Mr. Farrell said that he thought the numbers were still too low. It’s not enough to enter the projects from an agency capital improvement program, since that is a forward-looking document that does not show projects already completed. There was a question about what counted as a project. Mr. Farrell said that the minimum was \$300,000 in cost and/or one mile or more in length. Some agencies chose to enter only their larger projects.

Mr. Farrell asked the group to send him pictures of any projects they wanted highlighted in presentations.

Another unfinished item is mapping of the major projects, which will be addressed partially in the next presentation.

## **5. Use of GIS for Interactive Mapping and Visualization**

Mr. Kent and Ms. Mirr spoke to a powerpoint showing how GIS can be used to present regional plans. The idea is to create an on-line mapping app for bicycle and pedestrian projects in the plan. This app will be a companion product to the paper Bicycle and Pedestrian Plan. Photos and other information can be made available on the map, with links to resources. Mr. Kent showed an example from the CLRP. The GIS department is gathering GIS data layers showing bicycle and pedestrian projects from the jurisdictions in the regional transportation data clearinghouse.

Users will be able to click on a project on the map to get more information. COG is looking for

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a consistent application for various plans, including the bicycle and pedestrian plan. Additional GIS data layers are needed. GIS layers rather than map services are preferred, since the map service images cannot be manipulated to achieve consistent symbols across different jurisdictions.

The mapping application should be finalized in September, and it could be presented to the TPB in October. Ms. Engelhart asked if it was prudent to add this task to the creation of the bicycle and pedestrian plan. Mr. Farrell said that he saw this mapping application as a follow-on to the plan, not a part of the plan itself. The mapping application would be connected to the bike ped project database.

In terms of the paper map, we can either use the old GIS layers, or import new layers. Ms. Engelhart said that VDOT did not have the GIS layers available.

Mr. Sebastian noted that we will not map every project, only “major” projects, that will fit on a regional map.

Even the mapping app will not include everything in the bicycle and pedestrian plan.

Ms. Haldeman said that the mapping app does not have to be approved to approve the plan, but she strongly encouraged that it go forward, because it would be a great asset. Mr. Kent said that COG could provide some guidance to Virginia staff in the type of data layers needed.

Ms. Engelhart noted that Fairfax County has not provided us any information, even though they have 200 projects in the bond referendum. They are putting their resources into implementation, not publicity.

Ms. Kerr said that COG was asking for any data that VDOT or the jurisdictions might have that COG does not. COG has GIS layers for Frederick and Prince George’s Counties. We also have map service data for some other jurisdictions, including DC, Arlington, Alexandria, and Fairfax Counties, so we know the GIS layers exist. If we had them we could create a more cohesive regional map.

## **6. Other TPB Program Updates**

- **Workshops**

There is a Green Streets workshop on July 28<sup>th</sup>. On August 28<sup>th</sup> there will be a law enforcement oriented workshop. Mr. Sebastian asked how the publicity was going. Mr. Farrell said that we’ve always had about 50 police at these events.

**7. Adjourned**